EPA

POTENTIAL HAZARDOUS WASTE SITE
FINAL STRATEGY DETERMINATION

REGION	SITE NUMBER
VII	KSD007233372

File this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency, Site Tracking System; Hazardous Waste Enforcement Task Force (E.N-335), 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET	
BUTLER MANUF. CO. - OSWALT DIV.	N. HWY. 83	
C. CITY	**D. STATE**	**E. ZIP CODE**
GARDEN CITY	KS	67846

II. FINAL DETERMINATION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY			
		EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED			X		
B. REMEDIAL ACTION NEEDED, BUT NO RESOURCES AVAILABLE (If yes, complete Section III.)					
C. REMEDIAL ACTION (If yes, complete Section IV.)					
D. ENFORCEMENT ACTION (If yes, specify in Part E whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)					

E. RATIONALE FOR FINAL STRATEGY DETERMINATION

THE SI INDICATED THAT THE PAINT SLUDGE WASTES HAD BEEN REMOVED TO AN APPROVED HAZARDOUS WASTE LANDFILL. THE STATE WILL MONITOR THE WELLS.

F. IF A CASE DEVELOPMENT PLAN HAS BEEN PREPARED, SPECIFY THE DATE PREPARED (mo., day, & yr.)	G. IF AN ENFORCEMENT CASE HAS BEEN FILED, SPECIFY THE DATE FILED (mo., day, & yr.)

H. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)
KEN RAPPLEAN	913-236-2856	12-04-89

III. REMEDIAL ACTIONS TO BE TAKEN WHEN RESOURCES BECOME AVAILABLE

List all remedial actions, such as excavation, removal, etc. to be taken as soon as resources become available. See instructions for a list of Key Words for each of the actions to be used in the spaces below. Provide an estimate of the approximate cost of the remedy.

A. REMEDIAL ACTION	B. ESTIMATED COST	C. REMARKS
	$	
	$	
	$	
	$	
	$	
	$	
	$	
	$	
D. TOTAL ESTIMATED COST	$	

Continue On Reverse

SITE INSPECTION REPORT

Oswalt Division, Butler Manufacturing Company
North Highway 83,
Garden City, Kansas 67846
S 1/2, NE 1/4, Section 12, Township 24S, Range 33W
Site ID Number KSD007233372

PREPARED BY

Richard Flanary, P.E.	Environmental Engineer
E. Jean Underwood	Environmental Geologist
Charles Spencer	Environmental Technician

September 25, 1985

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APPENDIX

EXECUTIVE SUMMARY

The eighty acre site is located in the South half of the Northeast quarter of Section 12, Township 24S, Range 33W in Finney County. The site is located on the west edge of Garden City, Kansas on north Highway U.S. 83. The site layout consists of a forty acre plant site which contains one main and two auxilliary buildings in the northeast corner of the property. Most of the site is used for outside storage of unfabricated metal and other manufacturing materials. The plant is connected to the city sewer and public water system but originally used an on site well for water supply and a septic tank for domestic waste disposal until about 1976.

The site was originally owned by Harry Oswalt who began the plant operation in 1965 as Oswalt Manufacturing. The sites current owner is Oswalt Division, Butler Manufacturing Company, which bought the plant in 1969. The plant manufactures manure spreaders, feed mixers and grinders, livestock handling systems and other farm and agricultural equipment. When in full operation the plant employed about 200 people. The plant has been expanded several times but currently is not in full production.

The department's regulatory history began when the plant submitted its first hazardous waste generator's report to the Bureau of Waste Management (BWM) on May 22, 1979. From this report it was learned the company had dumped paint booth water and sludge and waste oil on the ground on plant property. On November 21, 1980, the plant requested disposal authorization from the BWM to dispose of its paint wastes at the K.I.E.S. Hazardous Waste Landfill near Wichita. On June 6, 1981 the plant notified EPA under Section 103 of The Comprehensive Environmental Response Compensation and Liability Act of 1980 it was a potential hazardous waste site due to their past on site waste disposal activities.

The site was listed because paint wastes and solvents were disposed on site. The area has been cleaned up and poses no threat to the environment. The depth to groundwater of 80 feet and relatively impermeable soils in the area makes it unlikely groundwater has been contaminated in the area by past on site waste disposal activities. Although the quantities of waste disposed on site are unknown, they were known to be relatively small amounts. The on site well should be located and sampled if possible and then properly plugged. There are a few wells down gradient from the site which should be sampled and analysed as a precautionary measure. If the Bureau of Oil Field and Environmental Geology determines these private wells are adequate to monitor groundwater in the area, then no permanent groundwater monitoring wells will need to be installed. If these wells show no contamination, the site should be considered for "delisting" and written off as "no further action necessary."

P

NO Analysis

BACKGROUND

The eighty acre site is located in the South half of the Northeast quarter of Section 12, Township 24S, Range 33W in Finney County. The site is located on the west edge of Garden City, Kansas on north Highway U.S. 83. The site layout consists of a forty acre plant site which contains one main and two auxilliary buildings in the northeast corner of the property. Most of the site is used for outside storage of unfabricated metal and other manufacturing materials. The west forty acres has not been used for industrial purposes to date and was planned to be used for future expansion which never occurred. The plant is connected to the city sewer and public water system but originally used an on site well for water supply and a septic tank for domestic waste disposal until about 1976.

The site was originally owned by Harry Oswalt who began the plant operation in 1965 as Oswalt Manufacturing. The sites current owner is Oswalt Division, Butler Manufacturing Company, P.O. Box 1038, Garden City, Kansas 67846 which bought the plant in 1969. The plant manufactures manure spreaders, feed mixers and grinders, livestock handling systems and other farm and agricultural equipment. When in full operation the plant employed about 200 people. The plant has been expanded several times but currently is not in full production.

The department's regulatory history began when the plant submitted its first hazardous waste generator's report to the Bureau of Waste Management (BWM) on May 22, 1979. From this report it was learned the company had dumped paint booth water and sludge on the ground on plant property. On April 16, 1980 the BWM made an inspection of the plant. The area where the paint wastes were dumped also was found to contain waste oil. A small burn site was also seen. On August 18, 1980 the BWM wrote the plant a letter to request they clean up their on site waste disposal area and make arrangements for proper disposal of paint wastes and used motor oil.

On November 21, 1980, the plant requested disposal authorization from the BWM to dispose of its paint wastes at the K.I.E.S. Hazardous Waste Landfill near Wichita. On August 18, 1980 they had applied for and received an EPA identification number (KSD00733372) as a hazardous waste generator from EPA Region VII.

On June 6, 1981 the plant notified EPA under Section 103 of The Comprehensive Environmental Response Compensation and Liability Act of 1980 it was a potential hazardous waste site due to their past on site waste disposal activities. On December 22, 1981 the BWM made a preliminary assessment of the site and filled out EPA Form T2070-2.

On November 2, 1981 the BWM wrote the plant a letter informing them their paint wastes should be analysed for the characteristics of ignitability and EP Toxicity to ascertain if they were classified as a hazardous waste under 40 CFR, Part 261 of the Kansas and Federal Hazardous Waste Regulations. Paint sludge was delisted as a nonspecific source hazardous waste (F017) unless it met one of these two characteristics. On February 12, 1982 the plant submitted the requested data documenting its plant wastes were nonhazardous. On March 18, 1982 the BWM approved disposal of the plant's paint wastes at the Finney

County Sanitary Landfill under Industrial Solid Waste Disposal Authorization Number 221.

On June 19, 1984 the plant requested the BWM to remove it from the regulated hazardous waste generator list. On July 10, 1984 the BWM conducted a RCRA hazardous waste generators inspection of the plant. The plant generated nonhazardous paint sludge which was being disposed at the Finney County Landfill, waste oil which was being reclaimed, and solvent based paint stripper and carbon remover which was diluted and disposed in the city sewer. Based on this inspection the plant was determined not be a regulated Kansas hazardous waste generator and on July 30, 1984 the BWM changed the plant's status to a nonregulated operation.

Also on July 10, 1984 Richard Flanary and Charles Spencer inspected the area previously used by the plant for on site disposal of paint wastes and waste motor oil with Mr. Bob Overton, Plant Manager, the area was about one quarter acre in size and located along the edge of the southwest corner of the 40 acre active plant site. The plant site is chain link fenced. The former disposal area is located near a drainage ditch which runs along the south edge of the property and drains to the east and then south toward the Arkansas River. The disposal area had been cleaned up, but paint chips were still visible on top of the ground. A composite sample of soil was collected from this area for heavy metal analysis.

The on site well was located north of the disposal site in the storage yard. Mr. Overton did not know its exact location or status since it was not used since 1976. Since the well was upgradient of the disposal site and houses in the subdivision downgradient from the disposal site were on city water, this well was not located. During the inspection, we learned the septic tank which was located in front of the main building along U.S. Highway 83 had been filled in during plant expansion activities.

ENVIRONMENTAL SETTING

Oswalt Division of Butler Manufacturing is located in the Northeast Quarter of Section 12, Township 24 South, Range 33 West, Finney County, Kansas. The general area is very flat since it is located in the Arkansas River Valley. The topography begins to gradually slope in the areas adjacent to the Arkansas River Valley. The site is located approximately two miles from the Arkansas River. Since the site appears to be within the city limits of Garden City, most drainage would appear to be to city storm sewers although an intermittent stream is nearby the site.

The principal soil type in the area is the Bridgeport clay loam with 0 to 1 percent slopes. The Bridgeport clay loam is well-drained with medium permeability.

According to U. S. Geological Survey Atlas HA-442, the site is underlain by alluvial deposits. The alluvial deposits are comprised of very coarse gravel, sand, silt and clay. The maximum thickness of the alluvial deposits in the Arkansas River valley is 68 feet but in the vicinity of the site, thicknesses are more on the order of 35 to 40 feet. Undifferentiated Pleistocene deposits and the Ogallala formation underlie the alluvial deposits. The thickness of the undifferentiated Pleistocene deposits and the Ogallala formation is approximately 280 feet. The bedrock formation is the Greenhorn limestone.

The undifferentiated Pleisocene deposits and the Ogallala formation are the principal aquifers in the area. The alluvial deposits also yield large quantities of water. The approximate depth to the alluvial deposits is 5 feet and to the undifferentiated Pleistocene deposits is about 40 feet. The approximate depth to groundwater is 80 feet. The direction of groundwater flow is to the Southeast.

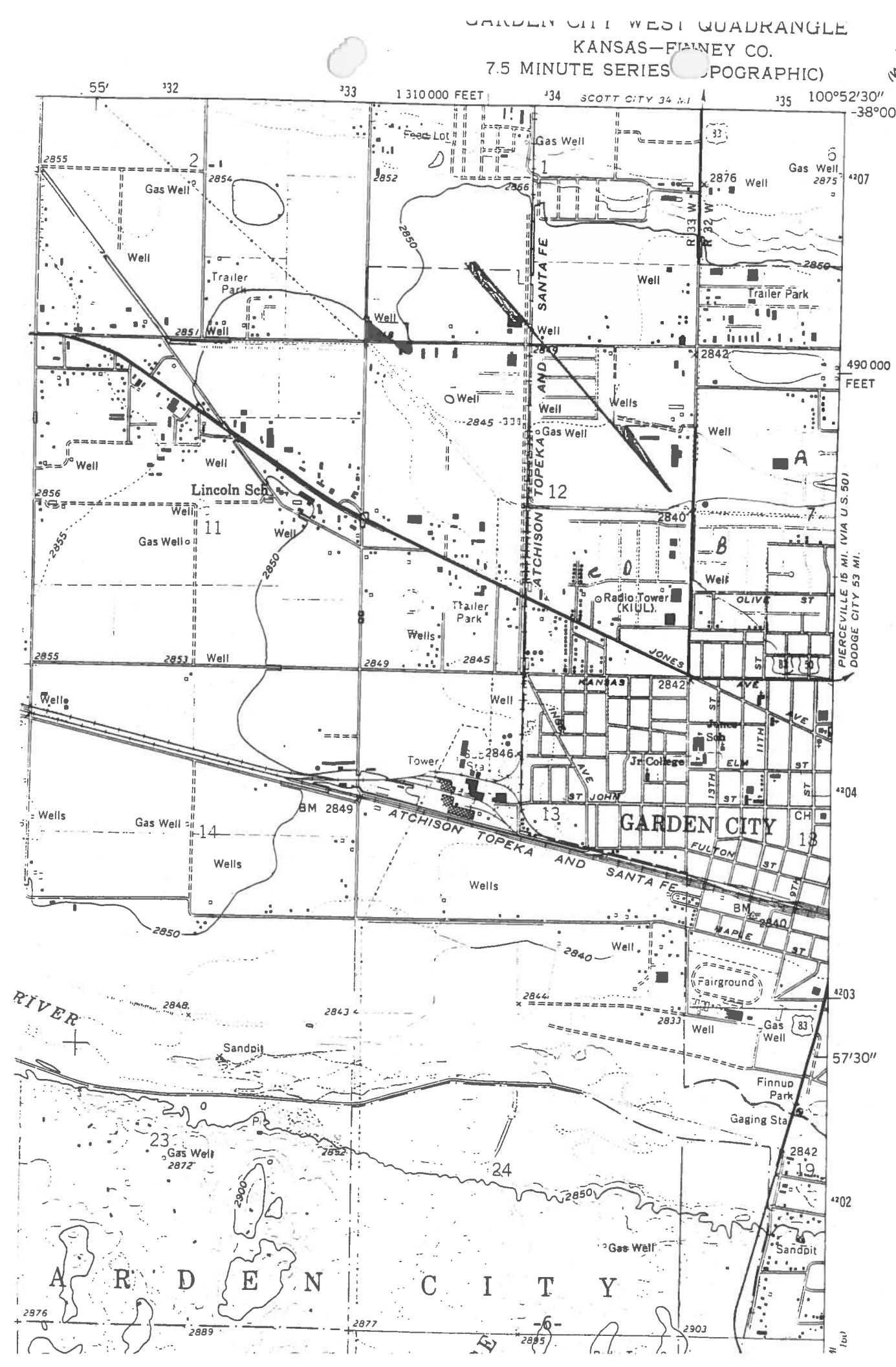
The average annual precipitation near the site is 18 inches and the average annual evaporation is 72 inches. The U.S. Weather Bureau has collected precipitation and temperature data in Garden City. The average mean annual temperature at Garden City is about 54.5 degrees Farenheit.

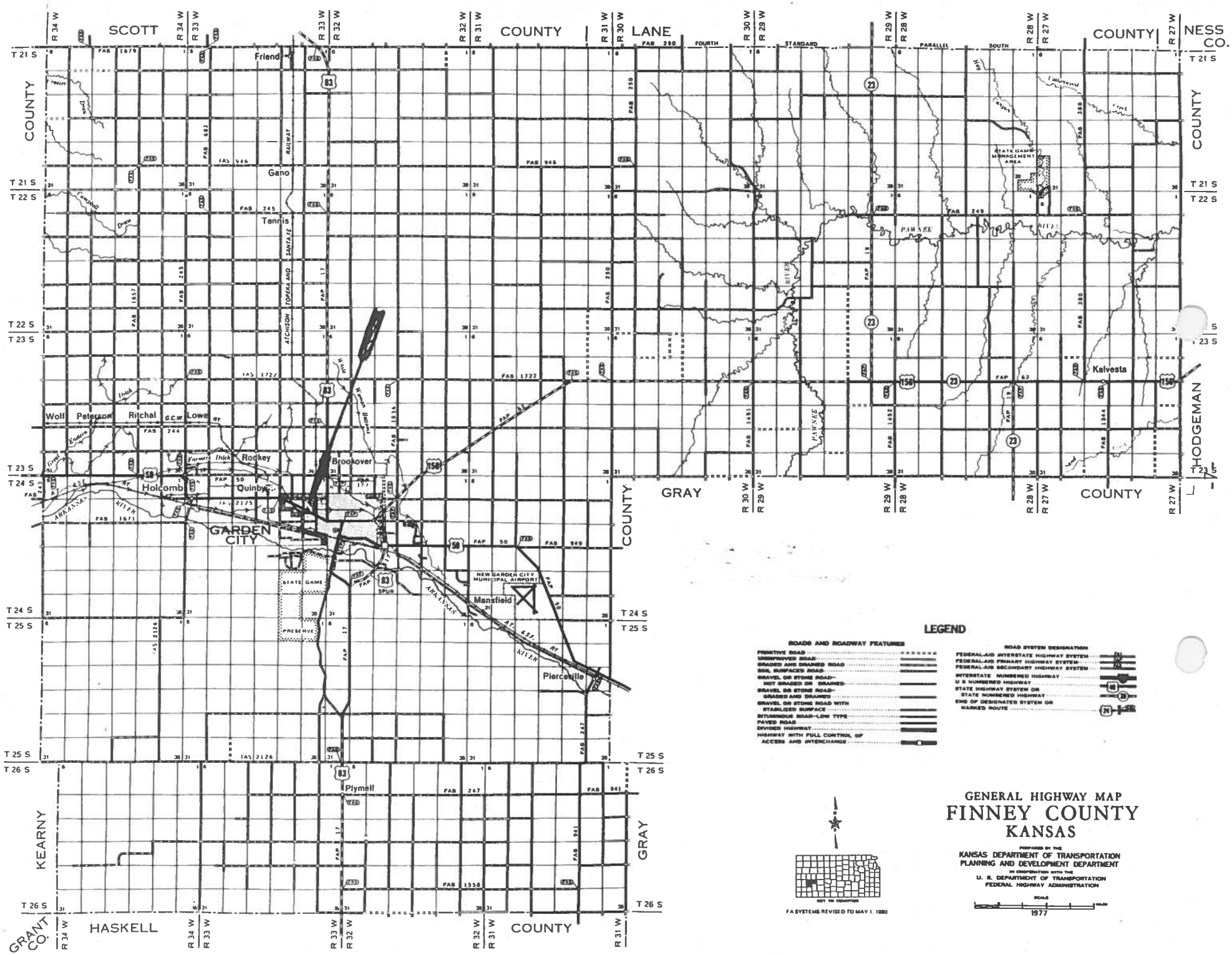
Agricultural endeavors are the primary uses of the land in Finney County. Sugar refining has also been considered a major industry. The population is characterized as rural, but Garden City, with a population of 18,500, is nearby.

Groundwater is the principal water supply source for domestic, stock, irrigation, industrial and municipal uses. Surface waters do not directly provide a water supply source due to lack of flows and so, do not sustain continual usage. There are many domestic, irrigation, industrial and municipal wells in the area.

There are four wells within one half mile of the site which if sampled and analysed should provide adequate data to document whether the site has or is causing groundwater contamination in the area. They are plotted on the USGS countour map and marked on the computer printout and well logs given in the Apendix. If possible the on site well should also be located and sampled.

Owner at Construction	Type Well Use	Depth-Feet	Section	Date Completed
A. John Talley	Lawn	97	7	7-76
B. Darrell Comes	Lawn	140	7	3-5-79
C. Richard Quint	Lawn	210	12	5-20-80
D. Werner Minnis	Domestic	242	12	2-9-82


GARDEN CITY WEST QUADRANGLE
KANSAS—FINNEY CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
5860 III SE
(WHITE WOMAN BOTTOMS)
55'
32
33
1 310 000 FEET
34
SCOTT CITY 34 MI
35
100°52'30"
38°00'
490 000 FEET
Feed Lot
Gas Well
Well
Trailer Park
Lincoln Sch
ATCHISON TOPEKA AND SANTA FE
R 33 W
R 32 W
Wells
Radio Tower (KIUL)
OLIVE ST
JONES
KANSAS AVE
Jr College
ELM ST
ST JOHN
GARDEN CITY
FULTON ST
MAPLE ST
BM 2849
BM 2840
Fairground
Gaging Sta
Finnup Park
Sandpit
RIVER
PIERCEVILLE 15 MI. (VIA U.S. 50)
DODGE CITY 53 MI.
A R D E N C I T Y
-6-


SCOTT COUNTY
LANE COUNTY
NESS CO.
GRAY COUNTY
HODGEMAN COUNTY
KEARNY COUNTY
HASKELL COUNTY
GRANT CO.
Friend
Gano
Tennis
Kalvesta
Woll
Peterson
Richal
Lowe
Rodkey
Brookover
Holcomb
Quinby
GARDEN CITY
Mansfield
Pierceville
Plymell
STATE GAME PRESERVE
NEW GARDEN CITY MUNICIPAL AIRPORT
STATE GAME MANAGEMENT AREA
FOURTH STANDARD PARALLEL SOUTH
ATCHISON TOPEKA AND SANTA FE RAILWAY
ARKANSAS RIVER
PAWNEE RIVER
LEGEND
ROADS AND ROADWAY FEATURES
ROAD SYSTEM DESIGNATION
PRIMITIVE ROAD
UNIMPROVED ROAD
GRADED AND DRAINED ROAD
SOIL SURFACED ROAD
GRAVEL OR STONE ROAD—NOT GRADED OR DRAINED
GRAVEL OR STONE ROAD—GRADED AND DRAINED
GRAVEL OR STONE ROAD WITH STABILIZED SURFACE
BITUMINOUS ROAD—LOW TYPE
PAVED ROAD
DIVIDED HIGHWAY
HIGHWAY WITH FULL CONTROL OF ACCESS AND INTERCHANGE
FEDERAL-AID INTERSTATE HIGHWAY SYSTEM
FEDERAL-AID PRIMARY HIGHWAY SYSTEM
FEDERAL-AID SECONDARY HIGHWAY SYSTEM
INTERSTATE NUMBERED HIGHWAY
U S NUMBERED HIGHWAY
STATE HIGHWAY SYSTEM OR STATE NUMBERED HIGHWAY
END OF DESIGNATED SYSTEM OR MARKED ROUTE
FA SYSTEMS REVISED TO MAY 1, 1980
GENERAL HIGHWAY MAP
FINNEY COUNTY
KANSAS
PREPARED BY THE
KANSAS DEPARTMENT OF TRANSPORTATION
PLANNING AND DEVELOPMENT DEPARTMENT
IN COOPERATION WITH THE
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
SCALE
1977

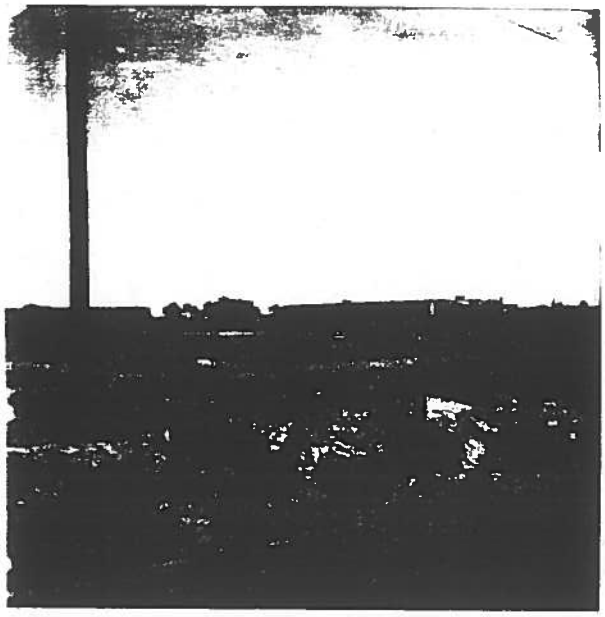
Department of Health and Environment
Division of Environment

PHOTO MOUNTING SHEET

Name of Site: Oswalt Division, Butler Manufacturing

Location: City Garden City County Finney Legal $S\frac{1}{2}$ $NE\frac{1}{4}$ Sec 12, T 24S, R 33W

No. 1 No. _____



Date: 7/10/84 Time: 10:30am

General Direction Faced: northeast

Weather Conditions: sunny

Type of Camera: polaroid

Taken By: Flanary

Additional Comments: Old dump area where paint sludge was dumped on ground.

Date: _____ Time: _____

General Direction Faced: _____

Weather Conditions: _____

Type of Camera: _____

Taken By: _____

Additional Comments: _____

WASTE CHARACTERIZATION

Estimates of waste quantities, types, and their disposal methods and locations are as follows:

FROM 1965-1980

Unknown amount of paint sludge and wastewater from water wall paint booth and paint dust from cleaning of electrostatic precipitator disposed on the ground on plant property. Unknown amount (probably small) of waste toluene and motor oil disposed on the ground on plant property.

FROM 1980-Present

Nine cubic yards of paint wastes from clean up of the area where paint wastes had been dumped on the ground on plant property were disposed at the K.I.E.S. Hazardous Waste Facility near Wichita in 1981.

Sixty gallons per year of paint stripper and carbon remover diluted with water and disposed in the city sewer.

Approximately ten barrels per year of nonhazardous paint sludge being disposed in the Finney County Landfill.

Cutting and motor oil is recycled and reclaimed.

LABORATORY DATA

Prior to 1978 the plant used lead and chromium based paints. After 1978 the plant used lead and chromium-free paints. The material safety data sheets for paints used after 1978 are given in the Appendix as well as the paint stripper used. The limited laboratory data obtained confirms this information and is given in Table 1.

TABLE 1
INORGANIC ANALYSIS OF COMPOSITE PAINT SLUDGE AND SOIL SAMPLES

Sample Location	Paint Sludge	Soil From Cleaned Up Disposal Area	
Laboratory	Environmental, Inc.	KDHE Laboratory	
Date Colleted	12-21-81	7-10-84	
Total mg/kg		X	
EP Toxicity mg/l	X		X
Iron	-	11,300	-
Manganese	-	344	-
Arsenic	0.01*	4.9	0.25*
Barium	1*	121	6.1*
Cadmium	0.01*	1.6	0.9*
Total Chromium	0.02	2,000	0.02*
Copper	-	26,000	-
Lead	3.9	8,800	0.24
Mercury	0.0001*	0.05*	0.02*
Selenium	0.01*	0.4	0.02*
Silver	0.01*	1	0.06*
Zinc	-	440	-

*Less than

Neither the paint sludge currently being generated or the soil remaining after clean up of the former on site waste disposal area would be considered hazardous under 40 CFR Part 261 of the Kansas and Federal Hazardous Waste Regulations. Environmental Laboratories, Inc., Topeka is a KDHE certified laboratory. KDHE's laborabory operations are audited and inspected by the U.S. EPA Region II laboratory on a regular basis. The laboratory follows standard quality assurance/quality control procedures.

TOXICOLOGY/CHEMICAL CHARACTERISTICS

The site has been cleaned up since 1981. The on site ground disposal of paint wastes containing lead and chromium and toluene from 1965 to 1980 are the main substances formally present which if allowed to enter groundwater could cause adverse health effects. Data on these three contaminants from Drinking Water and Health, published by the National Academy of Sciences in 1977 is as follows.

Available data generally indicate that the addition of lead to drinking water occurs chiefly in the distribution system, including household plumbing, and that this is most likely to occur in areas with soft "aggressive" water. Industrial pollution sources can also contaminate groundwater with lead. Treating groundwater by lime softening can easily remove lead by precipitation of calcium carbonate. Untreated groundwater systems are subject to higher scrutiny for sources of lead contamination for this reason. The Interim Primary Drinking Water Standard is 0.05 mg/l.

No beneficial effects of lead on human or animal development have yet been found. Although acute lead poisoning is rare, chronic lead toxicity is severe and occurs even with low daily intake of lead (less than 1 mg) because of its accumulation in bone and tissue. Major chronic adverse effects of lead are produced in the hematopoietic system, central and peripheral nervous systems, and kidneys. Disturbance in heme synthesis is considered to be the most sensitive effect. Children are a special risk group with regard to lead toxicity. A primary reason is that absorption of lead from food and water is 40-50% for 2-3-yr-old children, rather than the 5 to 10% characteristic of adults. Also, water intake per kilogram of body weight is considerably greater for young children than for adults.

The element chromium is amphoteric and can exist in water in several different forms. It is present in minor amounts in igneous rocks and is much more abundant in basic and ultra basic types than in the more silicic types of rocks. In attack by weathering chromium in cationic form Cr(III) behaves somewhat like iron and is largely retained in resistates and hydrolysates. Very little chromium goes into solution. Natural groundwater is expected to contain only traces of chromium as a cation unless the pH were very low. Natural chromates CrO_4 are rare and when present in water it is usually the result of pollution by industrial wastes. Microgram amounts of chromium derived primarily from food are essential for maintenance of normal glucose metabolism. Chromium (VI) is known to be toxic principally on the basis of information from respiratory occupational exposures (increase risk of lung cancer when inhaled).

Toxicity of chromium depends of the valence. No toxic effects were observed in rats when drinking water containing 25 mg/l of trivalent chromium for a year or 5 mg/l for life. Acutely toxic doses of trivalent chromium fall in the range of grams per kilogram of body weight. Hexavalent chromium was also tolerated at the 25 mg/l level for a year by rats and dogs showed no effects with 11 mg/l over a four year period. Higher doses of hexavalent chromium are toxic and produce erosion of the gastrointestinal tract and kidney lesions.

The maximum limit of total chromium given in the Interim Primary Drinking Water Standards is 0.05 mg/l.

Toluene is formed in petroleum refining and coal tar distillation. It is used in the manufacture of benzene derivaties, caprolactam, saccharin, perfumes, dyes, medicines, solvents, TNT, and detergent and as a gasoline component (USEPA, 1975d). The U.S. production of toluene in 1973 was over 6.8 billion pounds (USITC, 1975). It is insoluble in water (CRC Handbook of Chemistry and Physics).

For the protection of human health from the toxic properties of toluene ingested through contaminated aquatic organisms alone, the ambient water criterion is determined to be 424 mg/l. The 10^{-5} and 10^{-6} human health cancer risks for toluene in drinking water are 3.5 and 340 ug/l respectively as suggested by the National Academy of Sciences.

CERLIS DATA

There are no alias names for the site. The site latitude is 37° - 58' - 50", and the site longitude is 10° - 53' - 40". EPA From 2070-13 enclosed gives additional CERCLIS data which needs to be entered.

CONCLUSIONS AND RECOMMENDATIONS

The site was listed because paint wastes and solvents were disposed on site. The area has been cleaned up and poses no threat to the environment. The depth to groundwater of 80 feet and relatively impermeable soils in the area makes it unlikely groundwater has been contaminated in the area by the past on site waste disposal activities. Although the quantities of waste disposed on site are unknown, they were known to be relatively small amounts. The on site well should be located and sampled if possible and then properly plugged. There are a few wells down gradient from the site which should be sampled and analysed as a precautionary measure. If the Bureau of Oil Field and Environmental Geology determines these private wells are adequate to monitor groundwater in the area, then no permanent groundwater monitoring wells will need to be installed. If these wells show no contamination, the site should be considered for "delisting" and written off as "no further action necessary."

WM/3